

MicroGST-5 MicroGST-8

5 or 8 Port 10/100/1000Base-T
Desktop Switch

MicroGST-5 GEP-32005T-1
MicroGST-8 GEP-32008T-1



USER'S MANUAL

The information in this guide may be changed without notice. The manufacturer assumes no responsibility for any errors which may appear in this guide.

Ethernet is a trademark of XEROX Corporation. Microsoft, Windows and Windows logo are trademarks of Microsoft Corporation.

Copyright 2009. All right are reserved. No Part of the contents of this guide maybe transmitted or reproduced in any form or by any means without the written permission of us. Printed in Taiwan.

User's Guide: **Version 1.04**

FCC Statement

This product has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against such interference when operating in a commercial environment. This equipment generates uses and can radiate radio frequency energy, and if not installed and used according to the instructions, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his or her own expense will be required to take whatever measures to correct the interference.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

For Your Records

Product Name: _____

Serial Number: _____

Date of Purchase: _____

Purchased from: _____

Notes: _____

1. Introduction

Thank you for purchasing Unicom's **MicroGST-5** or **MicroGST-8** Desktop Gigabit Switch. Before you start installing the switch, verify the following parts in the package.

1.1 The package contains

Every switch contains the following:

- One **MicroGST-5** or **MicroGST-8** Desktop Gigabit Switch
- One AC Power Adapter
- One User's Guide

IMPORTANT: If any piece is missing or damaged, please contact your local dealer or reseller for service.

1.2 Features

- Auto MDI/MDI-X
- Head-of-line blocking prevention.
- Flow Control ensures no packet loss, back pressure for half duplex operation and IEEE 802.3x for full duplex operation
- Store and Forward switching methodology to ensure low latency and high data integrity, eliminates unnecessary traffic and relieves congestion on critical network paths
- No fan for low noise



For full coverage of your warranty, be sure to register your product using the enclosed registration card.

2. Installation

This chapter describes the function of the switch components and shows how to install it on your network. Basic knowledge of networking is assumed. Read this chapter completely before installation.

2.1 Front View and LEDs

Figure 2.1-1 illustrates the front panel of the **MicroGST-5** Switch; Figure 2.1-2 illustrates the front panel of the **MicroGST-8** Switch.

Table 2.1-1 describes the LED display of both switches.



Figure 2.1-1

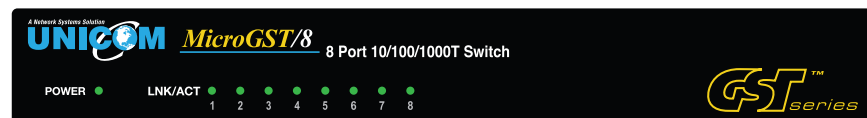


Figure 2.1-2

LED	Status	Color	Description
Power	On	Green	The switch is supplied with suitable power.
LNK/ACT	Blinks	Green	The port is receiving or transmitting data.

Table 2.1-1

4 Technical Specifications

■ MicroGST-5 (5-Port 10/100/1000T switch)

Ports	5-Port 1000Base-T
Buffer Memory	104 KB
MAC Address	1000
Jumbo Frame	9 KB
Size (W x D x H)	Metal case: 109 x 84 x 27 (mm) Plastic case: 120 x 84 x 32 (mm)
Weight	Metal case: 0.48 kg Plastic case: 0.49 kg
Power	7.5 VDC, 0.7 A
EMI/EMC	FCC Class A, CE

■ MicroGST-8 (8-Port 10/100/1000T switch)

Ports	8-Port 1000Base-T
Buffer Memory	192 KB
MAC Address	4000
Jumbo Frame	9 KB
Size (W x D x H)	Metal case: 158 x 104 x 27 (mm) Plastic case: 170 x 106 x 32 (mm)
Weight	Metal case: 0.63 g Plastic case: 0.49 kg
Power	7.5 VDC, 0.7
EMI/EMC	FCC Class A, CE

MicroGST-5 and MicroGST-8 Switches:

Operating Temperature	0°C to 40°C (32°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Operating Humidity	20% to 85% relative humidity, non-condensing
Storage Humidity	20% to 90% relative humidity, non-condensing

5. Warranty statement

We provide this limited warranty for it originally purchased the product from us or its authorized reseller or distributor. We guarantee that equipment is free from physical defects in workmanship and material under normal use from the date of original retail purchase of the Hardware. If the product proves defective during this warranty period, call our Customer Service in order to obtain a Return Authorization number. Be sure to have a proof of purchase on hand when calling. Return requests cannot be processed without proof of purchase. When returning a product, mark the Return Authorization Number clearly on the package pack and include you original proof of purchase. All customers outside the R.O.C. shall be held responsible for shipping and handling charges. In no event shall our liability exceed the price paid for the product from direct, incidental or consequential damage resulting from the use of the product, its accompanying software, or its documentation. We make no warranty or representation, expressed, implied, or statutory, with respect to its products or the contents or use of this documentation and all accompanying software, and specifically disclaim its quality, performance, merchantability, or fitness for any particular purpose. We reserve the right to revise or update its products, software, or documentation without obligation to notify any individual or entity.

wires of 1,2,3,6 are reversed so that wire 1 become 3 at the other end of the cable, 2 becomes 6, and so forth.

To determine which wire is wire 1, hold the RJ-45 plug with the spring clip facing towards the ground and the end pointing away from you. The copper wires exposed upwards to your view. The first wire on the far left is wire 1. You can also refer to the illustrations and charts of the internal wiring on the following page.

Figure 3-1 shows the diagram of Straight Through Cables. Figure 3-2 shows the diagram of Crossover Cables.

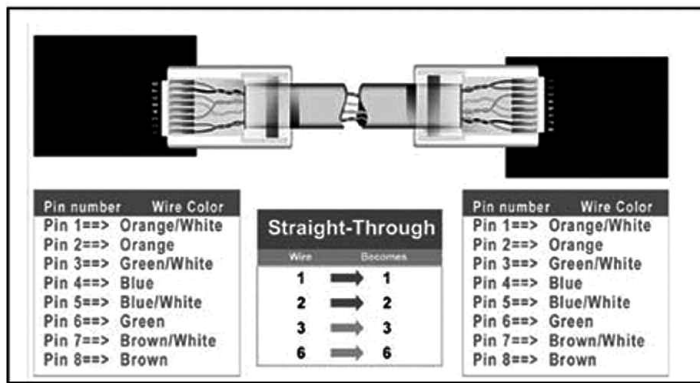


Figure 3-1: Straight Through Cabling

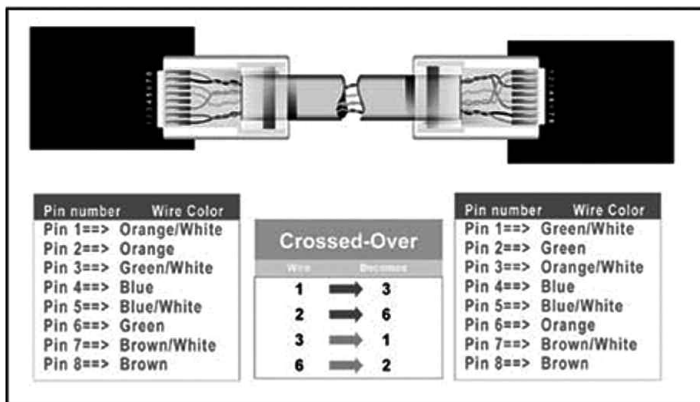


Figure 3-2: Crossover Cabling

2.2 Rear View

Figure 2.1-1 illustrates the rear panel of the **MicroGST-5** Switch; Figure 2.1-2 illustrates the rear panel of the **MicroGST-8** Switch.

Table 2.2-1 shows the port function of both switches.

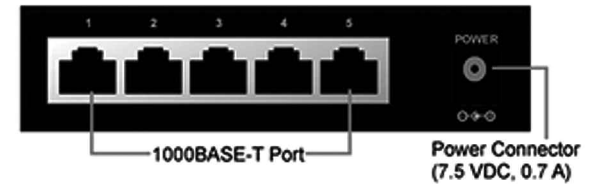


Figure 2.2-1

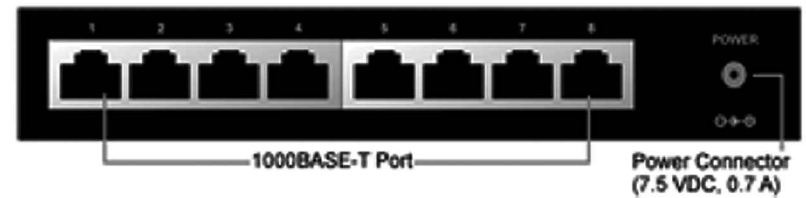


Figure 2.2-2

Port	Function
1000Base-T Ports 5-Port: Ports 1–5 8-Port: Ports 1–8	These 5/8 Gigabit ports connect to network devices such as PCs, print servers and other network peripherals at 1000 Mbps.
Power Connector	This is where you will connect the AC power adapter.

Table 2.2-1

2.3 Installing the switch

The **MicroGST-5 and 8 Switches** do not need software configuration. To install the switches, simply complete the following steps:

- Step 1**
- Select a location for your switch.
 - Put the switch on a sturdy surface.
 - Keep enough ventilation space between the switch and the surrounding objects.

Note: When choosing a location, keep in mind the environmental restrictions discussed in Chapter 3, *Specifications*.

- Step 2** Connect the switch to network devices
- Connect one end of a standard network cable to the RJ-45 ports on the back of the switch.
 - Connect the other end of the cable to the network devices such as printer servers, workstations or routers.

Note: Connection to the Switch requires UTP Category 5 (or greater) network cabling with RJ-45 plugs. For more information, please see the Cabling Specification in Chapter 3, *Specifications*.

- Step 3** Supply power to the Switch.
- Connect one end of the power cable to the switch
 - Connect the power cube end of the power adapter cable to a standard wall outlet.

When the switch receives power, the POWER LED and the LINK/ACT LED should remain solid green.

3. Specifications

3.1 Cable Specifications

Table 3-1 lists the cables you can use and their specifications.

Caution:

Please do not use telephone cables. Telephone cables do not support Ethernet or Fast Ethernet

Ethernet Type	Cable Requirement	Maximum Length
10Base-T	Category 3 or above, UTP or STP	328 ft (100M)
100Base-TX	Category 5 or above, UTP or STP	328 ft (100M)
1000Base-T	Category 5e or above, UTP or STP	328 ft (100M)

Table 3-1 Straight-Through and Crossover Cable Specifications

Twisted-pair cabling comes in various grades, or categories. Category 5 is required for Fast Ethernet, and is also the most reliable and most commonly used category. You can buy UTP Category 5 (Unshielded Twisted Pair) Ethernet cabling in pre-terminated lengths, or you can crimp your own. Crimping your own can result in faulty connections if the RJ-45 plugs are not attached properly. Pre-terminated Category 5 cabling is available at most computer retail stores.

The most reliable and commonly used type of Category 5 cabling used is UTP, or “unshielded twisted pair.” STP, or “shielded twisted pair” wiring is only necessary for network environments exposed to excessive amounts of electromagnetic interference, or EMI. These environments include areas with high sources of electrical power, air conditioning, generators, and radio signals. STP is also used for wiring outdoors.

There are two types of the wiring: Straight-Through Cables and Crossover Cables. Category 5 UTP/STP cable has eight wires inside the sheath. The wires form four pairs. Straight-Through Cables have identical pinouts at both ends while Crossover Cables have a different pin arrangement at each end.

In a straight-through cable, wires 1,2,3,4,5,6,7 and 8 at one end of the cable are still wires 1~8 at the other end. In a crossover cable, the